

**STATE OF MISSISSIPPI COASTAL IMPACT ASSISTANCE PLAN
TIER 1 PROJECT DESCRIPTION**

1. PROJECT TITLE: Recovery from Katrina: A Study of Pre- and Post-Katrina Water Quality on Local Streams, Wetlands and Beaches

2. LEAD ORGANIZATION / AGENCY: Hancock County Board of Supervisors

3. FEDERAL TAX ID NUMBER: 646000420

4. PROJECT LEAD / POINT OF CONTACT:

Jenell Tompkins
3068 Longfellow Road, Building 26
Bay St. Louis, MS 39520
PHONE: (228) 467-6012
FAX: (228) 467- 2691
jvt@county.hancock.ms.us

5. PROJECT SUMMARY

LOCATION OF PROPOSED PROJECT: This project will be conducted in Hancock County, Mississippi. The education component will take place at Hancock High School. The research phase of the project will take place at the Bayou La Terra stream located on Firetower Road. Both of these phases will be under the guidance of Ms. Shani Gauthier. Other sites will be used to study the effects of Katrina on the aquatic environment including the beach in Waveland, Mississippi. Students will also work with scientists from Navoceanco to investigate effects of the storm on the Gulf of Mexico and the barrier islands.

DURATION OF PROPOSED PROJECT: Four years; funding requested in FY 2007.

PROPOSED START DATE: January 2008

PROPOSED END DATE: January 2012

PROJECT GOALS AND OBJECTIVES: The overall goal of this four-year project “Recovery from Katrina: A study of pre- and post-Katrina water quality on local streams, wetland and beaches.” is to increase awareness of environmental issues and the effects of Katrina on streams in Hancock County in order to promote conservation and protect or restore coastal areas. The goals are to:

A) Promote conservation of the coastal streams through advanced education on environmental issues for students at Hancock High School as part of Mississippi Coastal zone;

B) Protect the environment from further degradation by the study and comparison of pre- and post- Katrina stream data;

C) Observe environmental problems caused by the storm and restore through clean-up the coastal areas where feasible, and

D) Communicate the results to the community in order to promote further conservation and protection of the local aquatic environment.

PROJECT OBJECTIVES: To accomplish these goals the following objectives will be completed:

1. Collaboration of data collection and sharing of information with other Mississippi Coastal Zone organizations and entities such as Navocean, Mississippi Department of Environmental Quality (MDEQ), Mississippi Department of Marine Resources, J.L. Scott Marine Education Center and other Adopt-a-Stream programs along the Mississippi Gulf Coast.

2. Collect post-Katrina stream quality data at Bayou La Terra. This data will include stream and streamside characteristics, benthic macro invertebrates, pH, dissolved oxygen, water temperature, air temperature, and conductivity.

3. Compare and analyze pre- and post-Katrina water quality data in order to determine the extent of damage to the environment. Pre-Katrina data was gathered by students and other data will be supplied by collaborators.

4. Observe possible pollutants and exotics left by Katrina that are affecting the ecological parameters of the coastal wetlands and beaches (including the beach at Waveland).

5. Maintain and update a school website of the data collected for use by the public or other organizations and, when possible, convey results through local media (newspaper and television news).

6. Share data collected at local, state and regional professional conferences to increase awareness of the effects of Katrina on the coastal natural resources within the Mississippi Coastal Zone.

7. Meet curriculum requirements as dictated by Pearl River Community College catalog handbook for the environmental science course description in order to educate students on the importance of coastal natural resources and to provide them with college credit.

8. An estimated 80 sophomores, juniors and seniors will take this class over the four-year period.

9. Of those, at least 75 students will achieve a passing grade of A, B or C to achieve college credit from Pearl River Community College.

PROJECT SUMMARY: These goals and objectives will be obtained during monthly collection of chemical tests, benthic macro invertebrates, native aquatic flora, and soil samples. Further classroom investigations will organize and analyze data in preparation for publication to the community and other stakeholders in the project. In addition, investigations will include identifying possible new and established aquatic exotic species translocated as a result of Katrina and their possible success rates. Students will rely upon the *Streamkeepers Guide* to document and analyze water quality parameters.

Since our selected stream (Bayou La Terre) is part of the watershed of Hancock County, other waterways including wetlands, coastal beaches and barrier island areas will be included as limited investigations. Through these investigations, students and community members will develop a deeper understanding of and appreciation for the natural resources of the Mississippi Coastal Zone and how the water resources are related within a watershed.

The duration of the project will be approximately four years with a new set of students working on the activities each year. Each month students will monitor the quantitative perimeters of the stream at Bayou La Terre on Firetower Road. The data will be compiled and compared to statistics collected pre-Katrina. The data will then be published in pamphlets available to the community and on a webpage in conjunction with the Hancock County School district website. (www.hancock.k12.ms.us) This project could be disrupted by weather or school scheduling. If the project is disrupted, the schedule will be revised in order to meet CIAP subgrant goals and objectives and requirements of the Pearl River Community College to insure college credit can be achieved.

Curiosity about the impacts of Hurricane Katrina has prompted high community interest in the effects on natural resources of the Mississippi Coastal Zone. Through presentations by students to local professional organizations and community members, the results of this project will be shared. Other community entities, such as Navocean and the MDEQ, have eagerly offered support with this CIAP project in the form of volunteer services.

This project builds on the successes of the pilot project funded and completed under the 2001 Mississippi CIAP Program.

LIST OF COLLABORATORS / PARTNERS AND ROLE IN PROPOSED

PROJECT: Pearl River Community College will give academic credit in environmental science for student participants in the research and education phase of the project. In addition, the instructor Ms. Shani Gauthier is an adjunct instructor at the college and has access to their facility. **Navocean** will arrange for students to hear guest speakers on the appropriate topics covered in class and when possible arrange tours for the students of their facilities. **MDEQ** will act as advisors for instructors as needed. The **Adopt-a-Stream program** will provide training for teachers involved with the water testing including those both directly and indirectly involved with the research. This will

include Ms. Gauthier and fellow environmental science teacher, Ms. Suzette Burton. **J. L. Scott Marine Education Center** (another Mississippi CIAP Program subgrantee) will support the project goals and objectives by providing expertise and use of resources.

**BUDGET AND SPENDING ESTIMATE BY YEAR:
TABLE 1 Budget by Year**

Budget Category	2008	2009	2010	2011	Total
Total Allocation (FY 2007)	\$78,000	\$24,000	\$24,000	\$24,000	\$150,000
Total Budget Amount					\$150,000

Estimated expenses by calendar year:

2008 - \$78,000

2009 - \$24,000

2010 - \$24,000

2011 - \$24,000

6. AUTHORIZED USES:

Mark one	Authorized Uses of CIAP Funds (as specified by law)
X	1. Project and activities for the conservation, protection or restoration of coastal areas, including wetlands
	2. Mitigation of damage to fish, wildlife, or natural resources.
	3. Planning assistance and administrative costs of complying with CIAP (for DMR, Harrison, Hancock and Jackson County Administrative Projects only).
	4. Implementation of a federally-approved marine, coastal, or comprehensive conservation management plan.
	5. Mitigation of the impact of OCS activities through funding of onshore infrastructure projects and public service needs.

This project and its activities are consistent with CIAP’s “Authorized Use 1 -- the conservation, protection, and restoration of coastal areas, and wetlands,” because this educational program will provide opportunities for students to study environmental impacts of Hurricane Katrina and increase general ecological awareness within the community and ultimately improve protection of coastal resources by local citizens. By using real time data on stream health and water quality, students will better understand the benefits of a healthy environment and the long-lasting impacts caused by human-caused and natural alterations. From this understanding, communication with the community through press releases, presentations in public forums and an on-going web page will increase long-term conservation, protection and restoration efforts in the community.

7. WILL CIAP FUNDS BE USED FOR COST SHARING OR MATCHING PURPOSES FOR ANOTHER FEDERAL PROGRAM? ___ YES ___ X ___ NO.